A Prior Name for the Hawaiian *Gouldia terminalis* (Rubiaceae)

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Among the most frequently encountered woody plants in the wetter, forested portions of the Hawaiian Islands are members of the extremely variable genus *Gouldia.* Fosberg (1937) presented the results of his detailed study of this baffling genus and concluded that the variability could be properly categorized in not less than three species composed of more than 90 varieties and forms. However, even this number of formally named taxa failed adequately to represent the variability, for hybridization was so rampant that at that time more than 50 hybrids were also recognized and characterized. It is therefore not surprising that *Gouldia* has acquired a reputation, among botanists working on Hawaiian plants, not unlike that of *Crataegus* and *Rubus* in the eastern United States. Like those genera, it is naturally felt that its taxonomy can now be handled only by a specialist. The present note, written far from Hawaii, is therefore merely concerned with the nomenclature of the most widespread and variable species of this endemic genus.[2]

Although members of the genus undoubtedly must have been collected by botanists on several expeditions prior to that of the "Rurik" led by Kotzebue, the first description of a species is apparently the detailed analysis provided by Chamisso and Schlechtendal (1829) of their "Kaduae *affinis.*" Chamisso was the botanist on Kotzebue's voyage, and the original collection apparently was made on the slopes of the Koolau range of Oahu. Their account, as pointed out by Heller (1897), Fosberg (1937:4, 26) and Bullock (1958), did not result in a published binomial at that time as was inferred by A. Gray (1860) and the *Index Kewensis* (1895). In spite of the unusually detailed analysis of the sixth species appearing in their newly described genus *Kadua,* Chamisso and Schlechtendal failed to provide a binomial for this plant; they merely indicated its close affinities to *Kadua,* from whose species it differed in its indehiscent fruit and toothed stipules.

The following year DeCandolle (1830) listed each of Chamisso and Schlechtendal's species and condensed the original detailed accounts of each into but a few lines. Their "6. Kaduae *affinis*" appeared in DeCandolle's *Prodromus* in the form quoted below:

6. K? AFFINIS (Cham. et Schlecht. 1. c. p. 164.) ramis tetragonis transversim rugosis, foliis elliptico-lanceolatis acutis basi obtusis breve petiolatis, stipulis membranaceis utrinque subdentatis deciduis, cyma thyrsoidea terminali, drupa subglobosa, limbo calycis obliterato infra apicem coronata, indehiscente. [Woody tree or shrub] in insula O-Wahu. Flor. ignoti.

Fosberg (1936:4) dismissed DeCandolle's publication as a nomenclatural source in the statement quoted below:

DeCandolle, in 1830, a year after the publication of Chamisso and Schlechtendal's work, credited the latter with a *'Kadua– affinis* Cham. and Schlecht.,' appending a description which is an obvious condensation of the description published by Chamisso and Schlechtendal. DeCandolle's entire treatment of *Kadua* is based directly on the original treatment of the genus by Chamisso and Schlechtendal, with the same species arranged in the same order and with descriptions which are identical but somewhat condensed . . . It is obvious that *'Kadua affinis'* is the result of a misinterpretation of the intent of the original authors of the genus *Kadua,* as DeCandolle added nothing to the descriptions and no discussion. Therefore, it is evident that

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[2] Dr. F. R. Fosberg's thoughtful advice is here acknowledged with appreciation, but this does not imply that he is necessarily convinced of the change proposed in this paper.

DeCandolle did not have any intention of making a new species *'Kadua affinis,'* making it possible to judge it on the basis of Chamisso and Schlechtendal's original intent. The Cambridge Rules of 1930, Article 68, state that terms which are merely words, not intended as names, should be rejected; thus, fortunately, a means is provided for disposing of this meaningless name.

It would seem, however, that Fosberg's stated reasons are not sufficient justification for rejecting the name. Chamisso and Schlechtendal concluded in their final sentence concerning this species that "the whole internal structure of the fruit agrees therefore with Kadua."[3] Although they did not publish a binomial, it certainly would appear that DeCandolle did. Chamisso and Schlechtendal expressed their doubts as to generic position in one fashion and did not provide the taxon with a name; DeCandolle was no more certain as to the generic position of the plants than the original authors, but he expressed his doubts as to generic position in a different manner and did provide a binomial. He was perfectly free to utilize the epithet *affinis,* which he did. The question mark following the abbreviation of the generic name merely indicated that he too was uncertain that the clearly described species actually was congeneric. Chamisso and Schlechtendal more than adequately described the species but failed to provide a binomial; DeCandolle provided a binomial even though admitting that the plant might eventually prove not to be a congener of the other five species. Although DeCandolle "added nothing to the description and no discussion," he did provide the binomial that the previous detailed description of the species lacked. Fosberg's conclusion that "it is evident that DeCandolle did not have any intention of making a new species *Kadua affinis*" seems unwarranted. DeCandolle provided a binomial, and there is certainly no evidence that his intentions were at variance with his accomplishment.

In the *Prodromus* DeCandolle did not customarily place any authority at all after names that he was proposing. Species and new combinations being there published by him were not followed by any authority or reference. Since abbreviations for Chamisso and Schlechtendal, together with a reference to the place of publication, were all included parenthetically by DeCandolle after *K.? affinis,* it might be argued that he was merely accepting Chamisso and Schlechtendal's treatment and had no intention of publishing a new name. This is impossible to prove one way or the other, but certainly Article 34, Note 2, of the *International Code of Botanical Nomenclature* (1961) was never meant to be applied in such a case, as is shown by the examples provided. Furthermore, DeCandolle employed the parenthetical citation to convey a variety of information in addition to his customary indication of author and place of publication. Other information characteristically conveyed parenthetically by DeCandolle concerned authors who had merely indicated a species as new on a herbarium specimen (e.g., *Eryngium Haenkei* Presl ex DC., Prodr. 4:94. 1830); or mention that a description of a new species has been provided in a letter by another (e.g., *Eryngium prostratum* Nutt. ex DC., Prodr. 4:92. 1830); or that a drawing had been seen in the herbarium (e.g., *Cornus disciflora* Moc. & Sessé ex DC., Prodr. 4:273. 1830). Certainly, since DeCandolle had not seen specimens of this Hawaiian species, it was in accord with his rather liberal usage of parenthetical citation to indicate the source of his information. It is certainly not necessary to conclude that DeCandolle was not aware that Chamisso and Schlechtendal actually had not published a binomial. The conclusion therefore seems to me inescapable that DeCandolle did originate a binomial that was the first published for this species.

A combination based upon DeCandolle's binomial, therefore, appears necessary for this extremely common Hawaiian species. Combinations for the multitudinous varieties and forms within this species, of which more than 85 were originally proposed by Fosberg, are not provided here; it would seem most undesirable for anyone not thoroughly familiar with these variants to make the numerous transfers apparently required. It seems probable that a restudy of the problem with the benefit of the numerous collections made during the past quarter of a century might very well reduce considerably the number of taxa worthy of recognition. However,

[3] "Convenit ergo omnis interna fructus fabrica cum *Kadua.*"

Skottsberg (1944*a, b*) has expressed the opinion that there are at least several times as many species as accepted by Fosberg, and he has provided binomials for a number of them by elevating certain of Fosberg's varieties and forms in addition to accepting some binomials of earlier authors. And, recently, the Degeners (1961) have also expressed a different view and, in so doing, provided 22 new combinations largely as a result of elevating Fosberg's taxa to the next highest rank. Therefore, it would not seem desirable to make wholesale transfers at the present time.

Gouldia affinis (DC.) comb. nov.

"Kaduae affinis" Cham. & Schlecht., Linnaea 4: 164. 1829.

Kadua affinis [K? affinis] DC., Prodr. 4:431. 1830.

Petesia terminalis Hook. & Arn., Bot. Beechy's Voy. 85. 1832.

Petesia coriacea Hook. & Arn., Bot. Beechy's Voy. 85. 1832.

Gouldia sandwicensis A. Gray, Proc. Am. Acad. 4:310. 1860. *nom. illegit.* Art. 63 and 67.

Gouldia terminalis (Hook. & Arn.) Hbd., Fl. Haw. Is. 168. 1888.

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